

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
21 July 2005 (21.07.2005)

PCT

(10) International Publication Number  
WO 2005/066073 A1

(51) International Patent Classification<sup>7</sup>: C01B 33/02

(21) International Application Number:  
PCT/GB2004/005243

(22) International Filing Date:  
15 December 2004 (15.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0400149.1 6 January 2004 (06.01.2004) GB

(71) Applicant (for all designated States except US): PSIMED-ICA LIMITED [GB/GB]; Stephenson Harwood, One St Paul's Church Yard, London EC4M 8SH (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): DUNKLEY, John, Joseph [GB/GB]; Atomising Systems Limited, Unit 8, M1 Distribution Centre, Vulcan Road, Meadowhall, Sheffield S9 1EW (GB). TELFORD, Brett [GB/GB]; Atomising Systems Limited, Unit 8, M1 Distribution Centre, Vulcan Road, Meadowhall, Sheffield S9 1EW (GB). CONNOR,

Stephen, Edward [GB/GB]; pSimedica Limited, Malvern Hills Science Park, Geraldine Road, Malvern WR14 3SZ (GB).

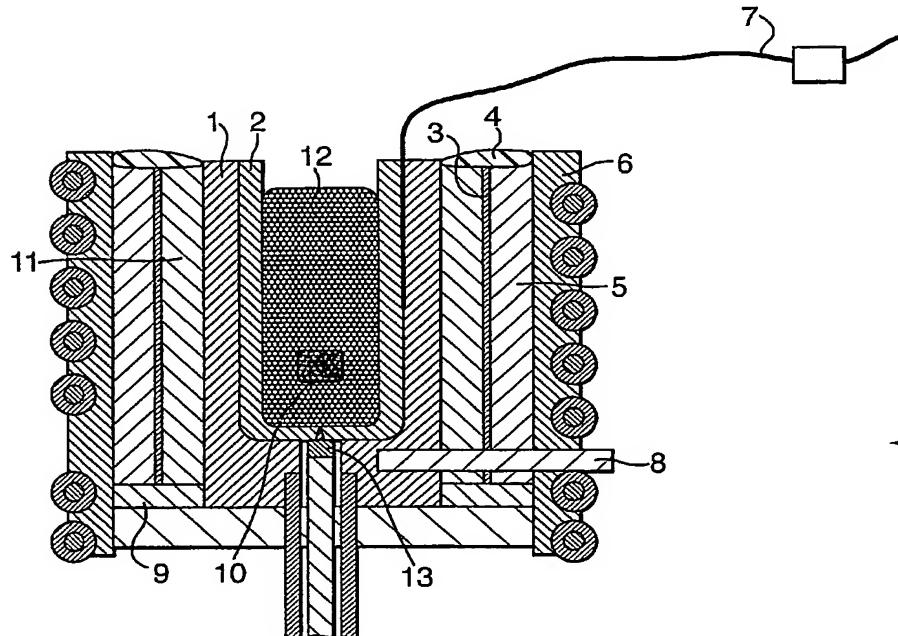
(74) Agents: GREAVES, Carol, Pauline et al.; Greaves Brewster LLP, Indigo House, Cheddar Business Park, Wedmore Road, Cheddar, Somerset BS27 3EB (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

*[Continued on next page]*

(54) Title: NEW MATERIAL AND METHOD OF FABRICATION THEREFOR



WO 2005/066073 A1

(57) Abstract: The present invention concerns new methods of fabricating a silicon material comprising phosphorus. The methods allow high levels of phosphorus to be combined with the silicon. In one aspect of the invention a sample of phosphorus is surrounded with a sample of silicon. At least some of the phosphorus is then vaporised and caused to interact with the silicon.

THIS IS AN AVAILABLE COPY



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *with international search report*

**Declaration under Rule 4.17:**

— *of inventorship (Rule 4.17(iv)) for US only*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

BEST AVAILABLE COPY